

RTIP ID# (*required*) ORA080909

TCWG Consideration Date July 24, 2012

Project Description (*clearly describe project*)

The Santa Ana and Garden Grove Fixed Guideway Project is located in the Cities of Santa Ana and Garden Grove in Orange County. The local transit system will extend Metrolink to Orange County's historic urban core, transferring riders directly from Santa Ana Regional Transportation Center (SARTC) to key activity centers in the Cities of Santa Ana and Garden Grove. The proposed project includes three alternatives: TSM/Best Bus, Streetcar Alternative 1 and Streetcar Alternative 2. The alternatives are described in detail below and in **Figures 1** through **3**, attached at the end of this document, show the proposed alignments.

COMMON DESIGN FEATURES OF STREETCAR ALTERNATIVES

Streetcar Alternatives 1 and 2 would include the following common designed features:

- The portion of the alignment within the Pacific Electric right-of-way (PE ROW), located between Harbor Boulevard and Raitt Street, would be exclusive to streetcar operation.
- Streetcars would operate within the existing street network when the alignment transitions into existing city streets between Raitt Street and SARTC. Streetcars would travel in the same direction as existing traffic flows and would adhere to traffic signals.
- PE ROW would be utilized to cross the Santa Ana River. Two design options have been developed for the Santa Ana River Crossing: Option A, *Bridge Replacement* and Option B, *Bridge Avoidance*. Under the Bridge Replacement Option, the existing PE Santa Ana River Bridge would be removed and a new bridge to support the two tracks of the proposed streetcar alignment would be built. Under the Bridge Avoidance Option, the existing bridge would not be removed and two new bridge structures would be built on each side of the existing bridge.
- The proposed project includes two potential sites for an operations and maintenance facility. Site A is located south of SARTC, which is bordered by Fourth Street to the north, Sixth Street to the south, Poinsettia Street to the west, and Metrolink tracks to the east. Site B is located west of Raitt Street, which is bordered by Fifth Street to the north and PE ROW to the south.

UNIQUE FEATURES OF BUILD ALTERNATIVES

Streetcar Alternative 1 – Santa Ana Boulevard and Fourth Street Couplet

The streetcar will utilize a pair (i.e. couplet) of city streets to travel eastbound and westbound. Streetcar Alternative 1 would utilize Fourth Street (eastbound direction) and Santa Ana Boulevard (westbound direction) to form a couplet through downtown Santa Ana.

Sasscer Park. Streetcar Alternative 1 would include two alignment design options at Sasscer Park, located at the Santa Ana Boulevard/Ross Street intersection. Under Sasscer Park Option A, the streetcar would travel on a single track in an east direction from Santa Ana Boulevard ROW to the southern border of Sasscer Park. The streetcar would re-enter the existing street ROW at the Ross/Fourth Streets intersection and continue east on Fourth Street.

Under Sasscer Park Option B, the streetcar alignment would travel almost entirely within the existing street ROW. The circuitous route would begin at Santa Ana Boulevard, wrap around the northern boundary of Sasscer Park, turn onto Ross Street, turn immediate left at Fourth Street, and continue east on Fourth Street.

Fourth Street Parking. Streetcar Alternative 1 would include three scenarios related to parking on Fourth Street between Ross and French Streets. Under Fourth Street Parking Scenario A, also referred as Southside Parallel, the existing diagonal parking on the southern portion of Fourth Street between Ross and French Streets would be replaced with parallel parking to provide additional space for sidewalk expansion. This scenario would widen the existing sidewalk on the southern side from 12 to 20 feet.

Under Fourth Street Parking Scenario B, the existing diagonal parking on the southern portion of Fourth Street between Ross and French Streets would be eliminated to provide additional space for sidewalk expansion. This scenario would widen the existing sidewalk on the southern side from 12 to 27 feet.

Under Fourth Street Parking Scenario C, the existing diagonal parking on both sides of Fourth Street between Ross and French Streets would be eliminated to provide additional space for sidewalk expansion. This scenario would widen the existing sidewalk on both sides from 12 to 27 feet.

Streetcar Alternative 2 – Santa Ana Boulevard/Fifth Street and Civic Center Drive Couplet

The streetcar will utilize a pair (i.e. couplet) of city streets to travel eastbound and westbound. Streetcar Alternative 2 would utilize Santa Ana Boulevard/Fifth Street (eastbound direction) and Civic Center Drive (westbound direction) to form a couplet.

Civic Center Drive. Streetcar Alternative 2 would include two options to construct a bicycle facility at Civic Center Drive. Under Civic Center Drive Option A, parking along the south side of Civic Center Drive would be removed to accommodate all four travel lanes and bicycle lanes. In addition, a ROW would need to be acquired at each of the four stations located on Civic Center Drive to provide space for the bicycle lane and ADA-compliant streetcar station platforms. Under Civic Center Drive Option B, the number of westbound through lanes would be reduced to facilitate the bicycle lanes.

Initial Operable Segment for Streetcar Alternative 1 (IOS-1). IOS-1 includes similar project features, design options, and parking scenarios as Streetcar Alternative 1. IOS-1 follows the same alignment as Streetcar Alternative 1. However, a key difference is that the IOS-1 alignment terminates at Raitt Station rather than extending to Harbor Station. This alignment is approximately half the distance of Streetcar Alternative 1 and includes 9 stations as opposed to 12 stations under Streetcar Alternative 1.

Initial Operable Segment for Streetcar Alternative 2 (IOS-2). IOS-2 includes similar project features, design options, and parking scenarios as Streetcar Alternative 2. IOS-2 follows the same alignment as Streetcar Alternative 2. However, a key difference is that the IOS-2 alignment terminates at Raitt station rather than extending to Harbor Station. This alignment is approximately half the distance of Streetcar Alternative 2 and includes 10 stations as opposed to 13 stations under Streetcar Alternative 2.

Transportation System Management (TSM)/Best Bus Alternative

The TSM/Best Bus Alternative incorporates a “best bus” strategy to improve the existing bus routes while focusing on low-cost improvement options. The following details improvements for the “best bus” strategy:

- Frequency and span of service for bus routes in the east-west direction;
- Travel demand management strategies;
- Traffic signal timing improvements at select congested locations along Santa Ana Boulevard and Civic Center Drive;
- Real-time bus schedule information at high-volume transit stops;
- Transit stop amenities (i.e., benches, shelters, kiosks, sidewalk connections, etc.) along Santa Ana Boulevard and Main Street corridors; and,
- Timed-transfer operations along First Street, Santa Ana Boulevard and Civic Center Drive to enhance connections to north-south service.

Type of Project <i>(use Table 1 on instruction sheet)</i> Electric Streetcar				
County Orange	Narrative Location/Route & Postmiles From the western terminus at the Harbor Boulevard/Westminster Avenue intersection, the alignment would travel within the PE ROW from Harbor Boulevard to Raitt Street. The streetcar alignment would continue to travel east along with mixed-flow traffic from Raitt to Mortimer Streets and would terminate at SARTC. Caltrans Projects – EA# Not Applicable			
Lead Agency: City of Santa Ana				
Contact Person Cindy Krebs	Phone# (949) 212-2461	Fax# N/A	Email cindy@cindykrebsconsulting.com	
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 X PM10 X				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	X EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action:				
NEPA Delegation – Project Type <i>(check appropriate box)</i>				
Exempt	Section 6004 – Categorical Exemption		Section 6005 – Non-Categorical Exemption	
Current Programming Dates <i>(as appropriate)</i>				
	PE/Environmental	ENG	ROW	CON
Start	8/3/09	2013	2013	2014
End	2/1/13	2013	2013	2017
Project Purpose and Need (Summary): <i>(attach additional sheets as necessary)</i> Santa Ana is the most populous and most densely populated city in Orange County, with a population of 353,100 and an average population density of 12,500 persons per square mile. Santa Ana is the fourth most densely populated city in the United States, behind New York City, San Francisco, and Chicago. Garden Grove is the third most densely populated city in Orange County with more than 172,000 residents and over 9,000 persons per square mile. Population densities along the proposed fixed guideway route are the highest in Orange County. Over the next 20 to 25 years, the population in both cities is expected to increase by approximately ten percent. Employment in the City of Santa Ana was estimated to be approximately 149,800 jobs in 2007, representing approximately ten percent of all jobs in Orange County. Nearly 30 percent of employment within the City is in the Study Area. Over the next 20 to 25 years, employment within the City is expected to increase by approximately seven percent. It is anticipated that employment growth over the next 20 to 25 years will result in increased density in areas that are currently dense (e.g., north of the Civic Center) rather than the development of new employment centers. Congested freeways and arterials, limited bus service, and missing transit links limit accessibility, compromise connectivity, and impact livability in central Santa Ana. There is a need for environmentally responsible transportation solutions that serve the travel needs of the people who live, work, shop, and go to school within the Study Area. The intent of the proposed project is to enhance connectivity between neighborhoods, business, and activity centers in central Santa Ana, thereby enhancing access for residents and workers in a manner that contributes to a healthy community. A frequent and reliable transit corridor would provide these needed linkages to a multimodal transportation system that would also include local buses, bicycles, and pedestrians, and that would help reduce the dominance and dependence on the automobile. Enhancing connectivity and accessibility, improving modal options, and reducing automobile dependency would positively contribute to the way of life and livability within central Orange County. The current regional transit system within the Study Area is largely orientated in a north-south direction. There is a need for an east-west corridor to provide the connection to Metrolink, existing regional bus				

routes, and planned bus rapid transit routes along Harbor Boulevard and Bristol Street. The proposed project will extend Metrolink to Orange County's historic urban core, transferring riders directly from Santa Ana Regional Transportation Center to key activity centers in the Cities of Santa Ana and Garden Grove.

The purposes of the proposed project are to:

- Improve transit accessibility to and within the Study Area;
- Support local plans for transit-oriented development;
- Support economic vitality and foster redevelopment opportunities;
- Reduce automobile trips and improve local air quality;
- Foster healthy travel behaviors through enhanced walkability;
- Be sensitive to the character of the community; and
- Be financially feasible and cost efficient to construct, operate, and maintain.

Surrounding Land Use/Traffic Generators (*especially effect on diesel traffic*)

In the eastern portion of the Study Area, land uses are characterized by industrial, low- and medium-density residential, and general commercial development along arterial corridors. In the central portion of the Study Area, the Civic Center is characterized by office and institutional land uses. West of the Civic Center, land uses are largely characterized by low-density residential, general commercial along arterial corridors, concentrated areas of industrial along the PE ROW, and pockets of institutional land uses. The Santa Ana River and Willowick Golf Course are also located in the western portion of the Study Area.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Not Applicable. The proposed project is not categorized as a facility.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Not Applicable. The proposed project is not categorized as a facility.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Not available. The project has only been assessed for 2035.

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
Tables 1 and 2 show AADT and LOS under the No Build and Build Alternatives. Number of trucks and LOS for TSM/Best Bus and both Streetcar Alternatives 1 and 2 would remain unchanged when compared to the No Build Alternative.

TABLE 1: AADT - 2035

Study Segment	No Build Alternative			TSM/Best Bus Alternative			Streetcar Alternative 1			Streetcar Alternative 2		
	Total AADT	Truck AADT	Truck %	Total AADT	Truck AADT	Truck %	Total AADT	Truck AADT	Truck %	Total AADT	Truck AADT	Truck %
Santa Ana Boulevard	292,200	8,766	3	298,500	8,766	3	292,400	8,766	3	292,300	8,766	3
5 th Street	148,200	4,446	3	150,900	4,446	3	148,300	4,446	3	146,700	4,446	3
4 th Street	91,100	2,733	3	92,300	2,733	3	91,900	2,733	3	92,200	2,733	3
6 th /Brown Streets	4,600	138	3	4,600	138	3	4,700	138	3	4,7000	138	3
Civic Center Drive	156,000	4,680	3	156,100	4,680	3	156,600	4,680	3	159,800	4,680	3
Raitt Street	33,500	1,005	3	34,700	1,005	3	34,400	1,005	3	34,700	1,005	3
Pacific Avenue	5,500	165	3	5,700	165	3	5,600	165	3	5,700	165	3
Bristol Street	77,700	3,885	5	76,700	3,885	5	76,400	3,885	5	77,000	3,885	5
Shelton Street	7,000	210	3	7,000	210	3	6,800	210	3	6,900	210	3
Flower Street	57,200	1,716	3	58,000	1,716	3	58,700	1,716	3	58,500	1,716	3
Ross Street	27,800	834	3	27,900	834	3	28,700	834	3	28,600	834	3
Broadway Street	84,600	2,538	3	86,400	2,538	3	87,800	2,538	3	88,400	2,538	3
Sycamore Street	7,300	219	3	7,900	219	3	8,100	219	3	7,900	219	3
Main Street	181,200	5,436	3	183,900	5,436	3	179,000	5,436	3	181,700	5,436	3
Bush Street	19,000	570	3	19,300	570	3	19,500	570	3	20,400	570	3
Spurgeon Street	5,800	174	3	6,000	174	3	6,500	174	3	6,200	174	3
French Street	9,200	276	3	9,400	276	3	9,300	276	3	9,600	276	3
Mortimer Street	13,600	408	3	14,000	408	3	13,800	408	3	14,200	408	3
Minter Street	16,400	492	3	16,900	492	3	16,700	492	3	17,100	492	3
Lacy Street	7,300	219	3	7,700	219	3	7,600	219	3	7,900	219	3
Garfield Street	11,700	351	3	12,100	351	3	12,000	351	3	12,300	351	3
Poinsettia Street	7,100	213	3	7,500	213	3	7,400	213	3	7,800	213	3
Santiago Street	18,300	549	3	18,800	549	3	17,100	549	3	17,200	549	3
Fairview Street	57,200	1,716	3	56,900	1,716	3	56,900	1,716	3	27,000	1,716	3
Westminster Avenue	44,500	1,335	3	44,700	1,335	3	44,400	1,335	3	44,700	1,335	3
Daisy Avenue	300	9	3	300	9	3	500	9	2	500	9	2
3 rd Street	1,000	30	3	1,000	30	3	1,200	30	3	1,200	30	3

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

TABLE 2: PEAK HOUR LOS - 2035

Study Segment	LOS			
	No Build Alternative	TSM/Best Bus Alternative	Streetcar Alternative 1	Streetcar Alternative 2
Santa Ana Boulevard	D	D	D	D
5 th Street	F	F	F	F
4 th Street	F	F	F	F
6 th /Brown Streets	A	A	A	A
Civic Center Drive	A	A	A	A
Raitt Street	F	F	F	F
Pacific Avenue	A	A	A	A
Bristol Street	B	B	B	B
Shelton Street	A	A	A	A
Flower Street	A	A	B	A
Ross Street	A	A	A	A
Broadway Street	C	C	C	C
Sycamore Street	A	A	A	A
Main Street	F	F	F	F
Bush Street	A	A	A	A
Spurgeon Street	A	A	A	A
French Street	A	A	A	A
Mortimer Street	A	A	A	A
Minter Street	A	A	A	A
Lacy Street	A	A	A	A
Garfield Street	A	A	A	A
Poinsettia Street	A	A	A	A
Santiago Street	D	D	C	C
Fairview Street	F	F	F	F
Westminster Avenue	C	C	C	C
Daisy Avenue	A	A	A	A
3 rd Street	A	A	A	A

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*

The proposed local transit system will extend Metrolink to Orange County's historic urban core, transferring riders directly from SARTC to key activity centers in the Cities of Santa Ana and Garden Grove. The intent of the proposed project is to enhance connectivity between neighborhoods, business, and activity centers in central Santa Ana, thereby enhancing access for residents and workers in a manner that contributes to a healthy community. A frequent and reliable transit corridor would provide these needed linkages to a multimodal transportation system that would also include local buses, bicycles, and pedestrians, and that would help reduce the dominance and dependence on the automobile. As a result, the proposed project would provide regional traffic relief through the increased use of multimodal transportation.

Comments/Explanation/Details *(attach additional sheets as necessary)*

The Transportation Conformity Guidance includes the following relevant direction regarding Projects of Air Quality Concern (POAQC):

- New or expanded highway projects that have a significant number or significant increase in diesel vehicles (defined as greater than 125,000 AADT and 8% or more such AADT is diesel truck traffic); and
- Projects affecting intersections that are at a Level of Service D, E, F with a significant number of diesel vehicles, or that will change to Level of Service D, E, F because of increased traffic volumes from a significant number of diesel vehicles related to the project.
- New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; or
- Projects in or affecting locations, areas, or categories of sites which are identified in the PM_{2.5} or PM₁₀ implementation plan or implementation plan submission, as appropriate, as sites of possible violation.

The Lead Agency does not believe that the Santa Ana and Garden Grove Fixed Guideway Project should be considered a POAQC because it does not meet the definition of a POAQC as defined in USEPA's Transportation Conformity Guidance. The proposed project would not increase the volume of diesel vehicles on local roadways, would not worsen existing intersection LOS (as shown in **Table 2**), does not involve new bus or rail terminals that significantly increases diesel vehicles, and is not identified in the SIP as a possible PM_{2.5} or PM₁₀ violation site.

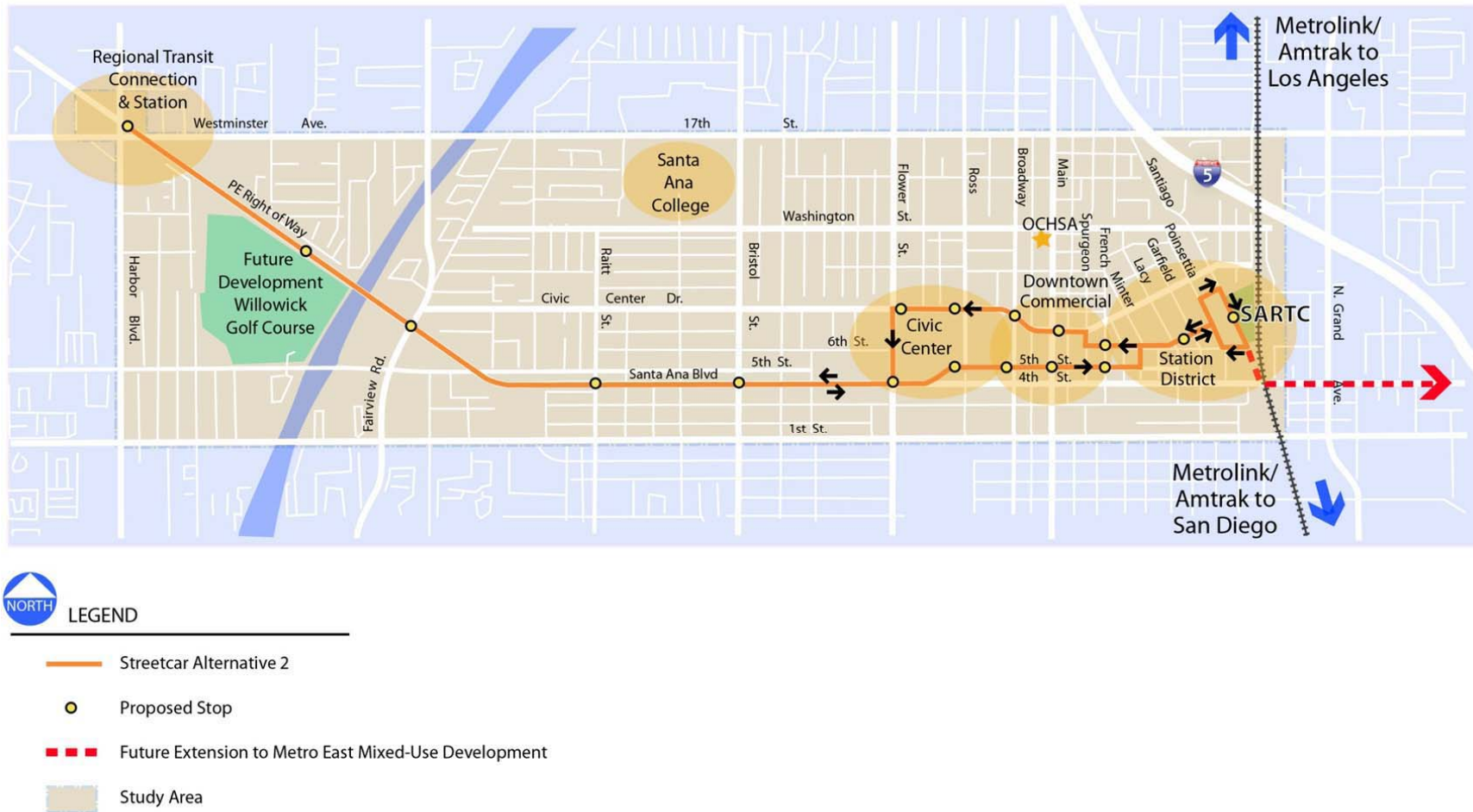
The proposed project would not generate diesel exhaust emissions. It would increase regional transit ridership and connectivity to the regional transit system. In addition, the proposed project would potentially include a bicycle facility at Civic Center Drive further promoting multimodal transportation. Based on the above analysis, the Lead Agency is requesting that this project be found not to be a POAQC.

Figure 1: Streetcar Alternative 1 Alignment



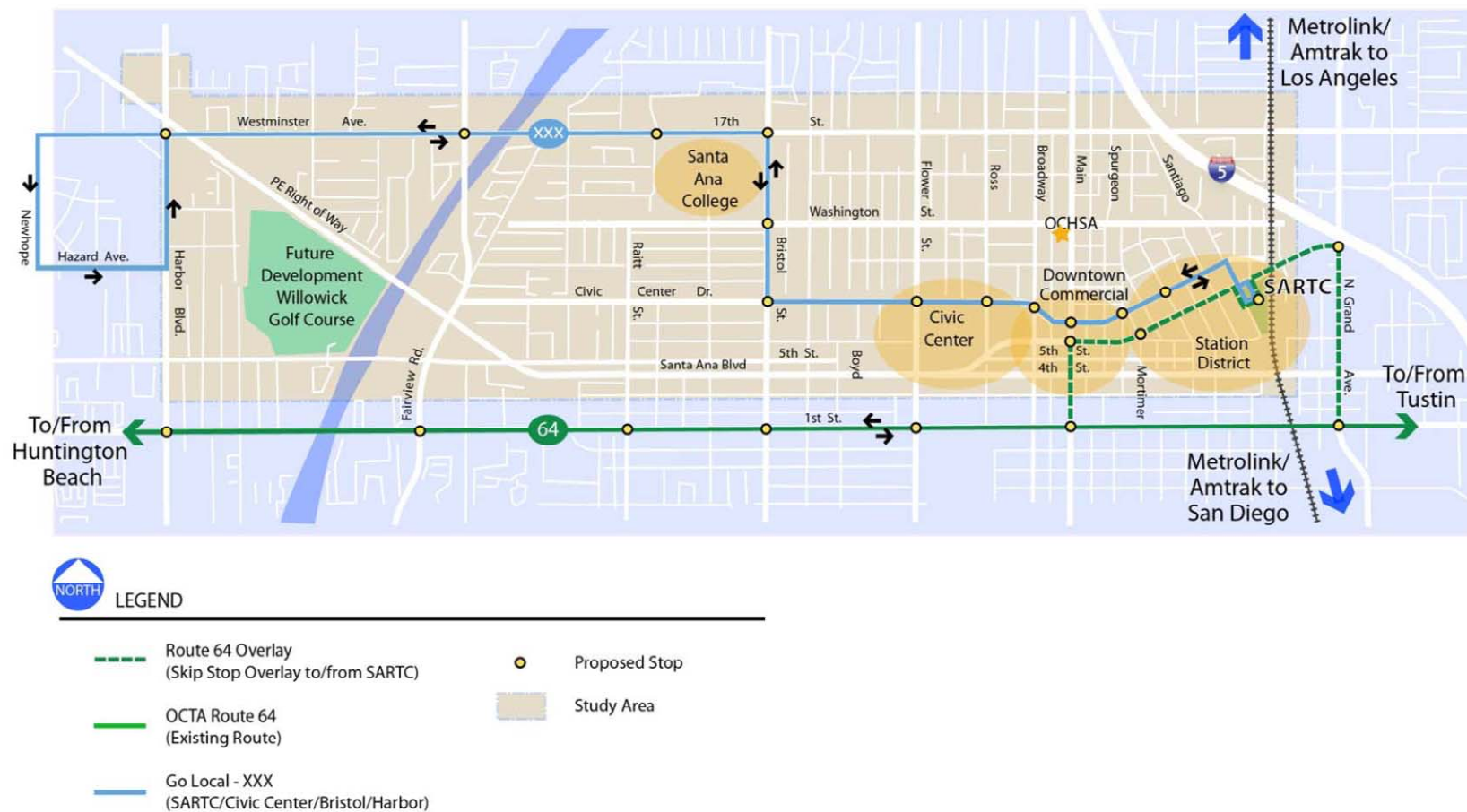
Source: Cordoba Corporation, Draft Conceptual Design Technical Report, March 2011, updated by URS Corporation June 2011

Figure 2: Streetcar Alternative 2 Alignment



Source: Cordoba Corporation, Draft Conceptual Design Technical Report, March 2011, updated by URS Corporation June 2011

Figure 3: Transportation System Management Alignment



Source: Cordoba Corporation, Draft Conceptual Design Technical Report, March 2011, updated by URS Corporation June 2011